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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|---------------------|------------------|
| 10/518,082 | 08/09/2005 | Jean-Pierre Moy | 62843(4590-358) | 2893 |
| 33308 | 7590 | 10/19/2007 | EXAMINER | |
| LOWE HAUPTMAN & BERNER, LLP | | | PEACE, RHONDA S | |
| 1700 DIAGONAL ROAD, SUITE 300 | | | ART UNIT | PAPER NUMBER |
| ALEXANDRIA, VA 22314 | | | 2874 | |
| MAIL DATE | | DELIVERY MODE | | |
| 10/19/2007 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|-----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/518,082 | MOY ET AL. |
| | Examiner Rhonda S. Peace | Art Unit 2874 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 August 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 1-6, 10-16 and 18 is/are allowed.
 6) Claim(s) 7-9, and 17 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 16 December 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/8/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 8, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan (US 5706371).

Pertaining to claims 7, 8, 9, and 17, Pan discloses an optical isolator array device wherein an optical component **13** between two optical fibers **25** furnished at their end with lenses **21** (column 2 lines 45-55, hereafter indicated as 2:45-55, 2:66-67, 3: 46-52, Figs 1 and 3). A support **10**, on which is mechanically fixed an array of capillary tubes **12** by the use of epoxy, has a blind cut **14** (a cut which does not penetrate the entire depth of the support) so as to separate the capillary tubes **12** such that they are aligned with one another, wherein the cut **14** is perpendicular to the longitudinal axis of the fibers **25** (within grooves **11**) and the optical component **13** is fixed with epoxy therein so as to be flush against one face of the cut **14** so that it is also perpendicular to the fiber **25** axis (2:64-67, 3:1, Fig 1). It is also noteworthy that Pan discloses the cut **14** may be non-perpendicular to the longitudinal axis of the fibers **25**, due to the desire to closely fit the cut dimensions with the dimensions of optical component **13** (3:19-27). Therefore, one of ordinary skill in the art would have found it obvious to fashion the cut so that the cut is perpendicular to the longitudinal axis of the fibers, as Pan has disclosed this option as one of two manners in which to fashion the cut. In addition, it is

well known in the art to fashion a cut that is perpendicular to the longitudinal axis of an optical fiber. Another instance where such a cut is disclosed in prior art would be Cullen et al (US 5325456), and is mentioned herein only as an example of a perpendicular cut. Furthermore, as Pan discloses both perpendicular and non-perpendicular cuts (with reference to the optical fiber longitudinal axis), it would have been obvious to one of ordinary skill in the art to form a cut of any geometry, so that it closely fits the optical component disposed therebetween the fibers, including making the first cut perpendicular to the longitudinal fiber axis and the second cut at an acute angle with the first cut, as this orientation would fit, for example, a right-triangular shaped optical component.

Allowable Subject Matter

Claims 1-6, 10-16, and 18 are allowed.

The following is an examiner's statement of reasons for allowance: While the prior art discloses structures, such as Pan discussed above, which have similar structural features to the present invention, this applicable art does not disclose, nor does it reasonably suggest a *method* for creating such a device wherein the support is drilled so as to fix a *capillary tube* therein, the tube is fixed in the drilling of the support, a *blind* cut is made in the support in such a manner as to separate the capillary tubes, and wherein the first plane face of the cut is *perpendicular* to the longitudinal axis of the capillary tube. Further, an optical component is then positioned *on the first plane face* of the cut, and an optical fiber is positioned in each of the capillary tubes.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments filed 12/8/2006 have been fully considered but they are not persuasive.

Applicant asserts, with reference to claim 7, the capillary tubes 12 of Pan are not mechanically aligned, and therefore asserts Pan does not disclose the subject matter of the claimed invention as described in claim 7. The Examiner disagrees.

The limitation "mechanically aligned" requires only that the two parts of the capillary tube are aligned by a mechanical means. "Mechanical means" can be broadly interpreted to include a simple hand-preformed placement of parts; as a hand-preformed placement of parts moves the parts on to the substrate. Therefore, "mechanically aligned" requires only alignment preformed through the movement of parts by any means. As Pan discloses placing the capillary tubes **12** on the substrate, the tubes **12** are "mechanically aligned."

The limitation "mechanically aligned" does not require the two parts of the capillary tube to be aligned such that *such that a common straight line may be drawn which runs along the longitudinal length (or optical axis) of each tube, wherein both tubes lie within a common plane*. "Mechanically aligned" simply relates to the manner in

which they are aligned, and places no restriction on the tubes' final placements with respect to one another.

An amendment requiring the two parts of the capillary tube of claim 7 to be aligned such that such that a common straight line may be drawn which runs along the longitudinal length (or optical axis) of each tube, wherein both tubes lie within a common plane may read, for example, as follows:

7. A device for positioning an optical component between two optical fibers furnished at their ends with lenses, comprising:
a support through which is fixed a capillary tube, the support having a blind cut so as to separate the capillary tube into two parts which in alignment with each other, in that the cut has a first plane face perpendicular to a longitudinal axis of the capillary tube, and in that the component is positioned on the first plane face, wherein said alignment results in the longitudinal axis of each of the two parts of the capillary tube to both lie along a common straight line within the same plane with respect to one another.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hasui et al (US 6535655) discloses a fiber optic polarizer and method of making the same. Nishihara et al (US 7172344) discloses an optical filter module and manufacturing a method thereof.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rhonda Peace 10/11/07.
Rhonda S. Peace
Examiner
Art Unit 2874

M.R. Connely-Cushwa
MICHELLE CONNELLY-CUSHWA
PRIMARY EXAMINER
10/15/07